



STATE OF MARYLAND

DHMH

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June 10, 2011

Public Health & Emergency Preparedness Bulletin: # 2011:22 **Reporting for the week ending 06/04/11 (MMWR Week #22)**

CURRENT HOMELAND SECURITY THREAT LEVELS

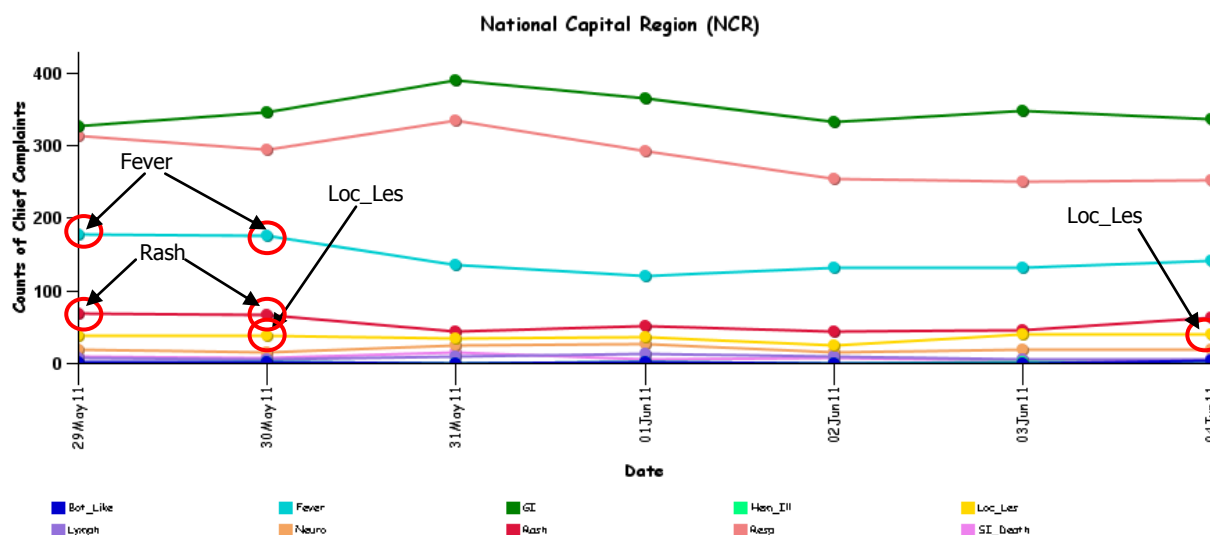
National: No Active Alerts
Maryland: Level One (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

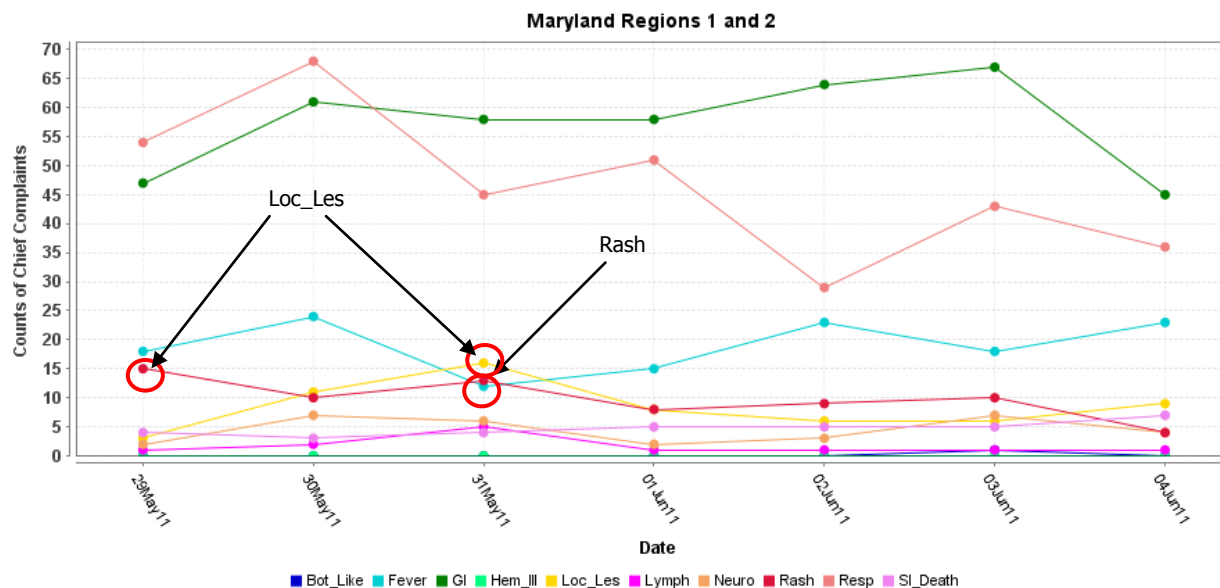
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

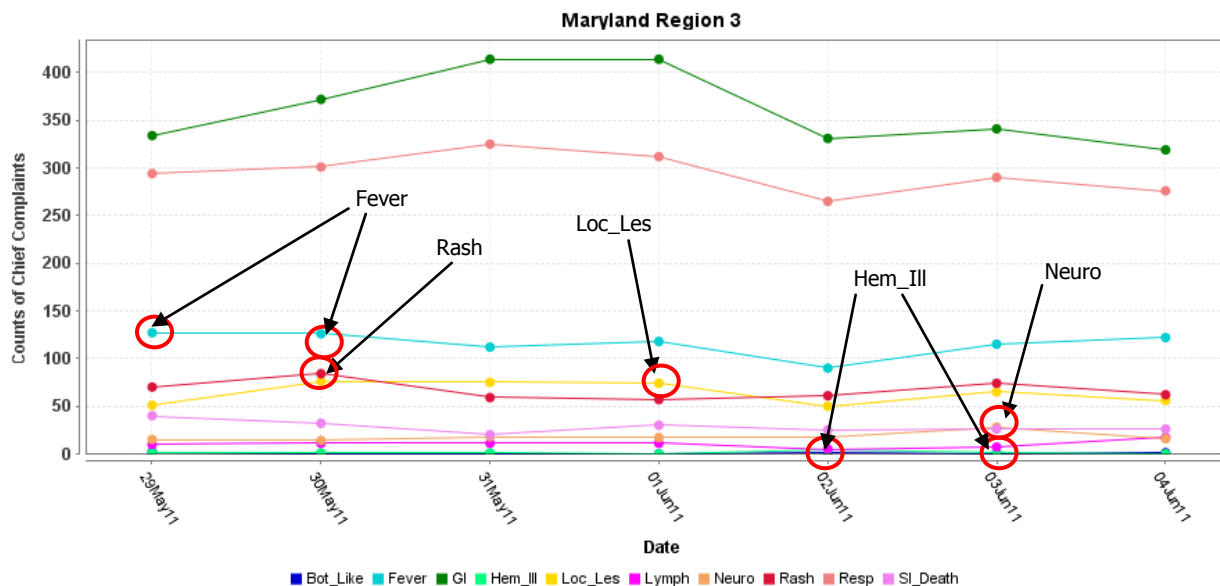


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

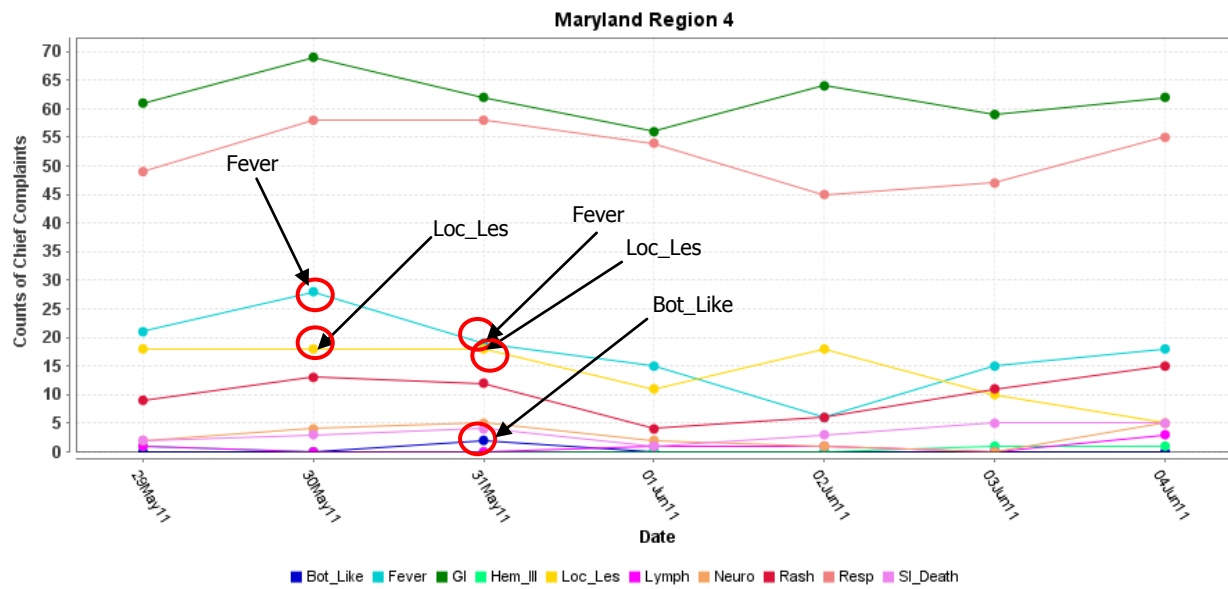
MARYLAND ESSENCE:



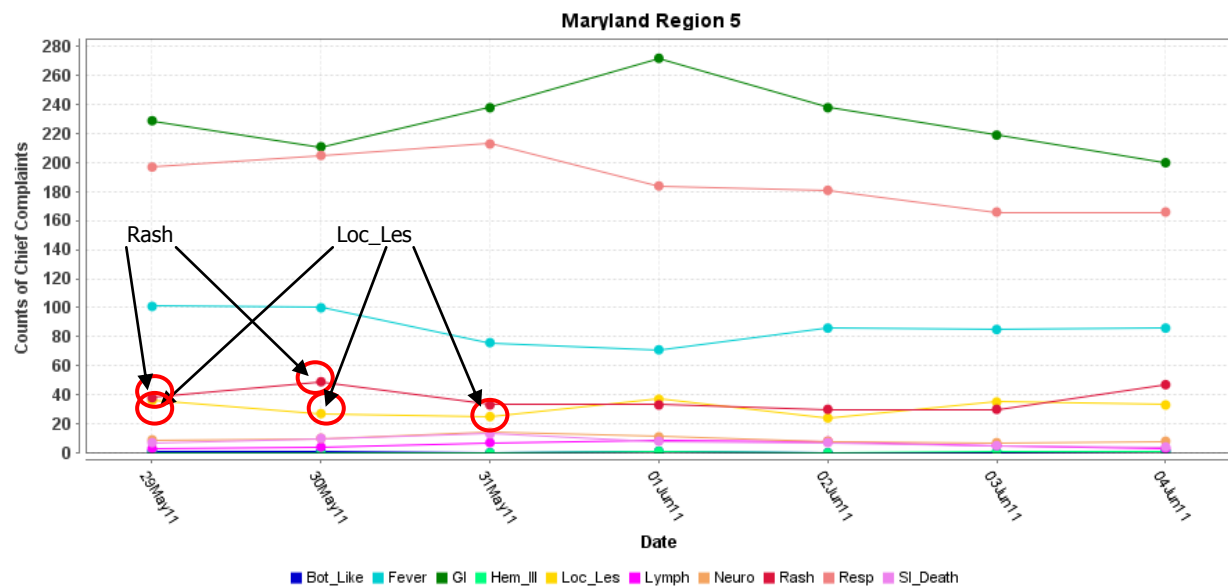
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

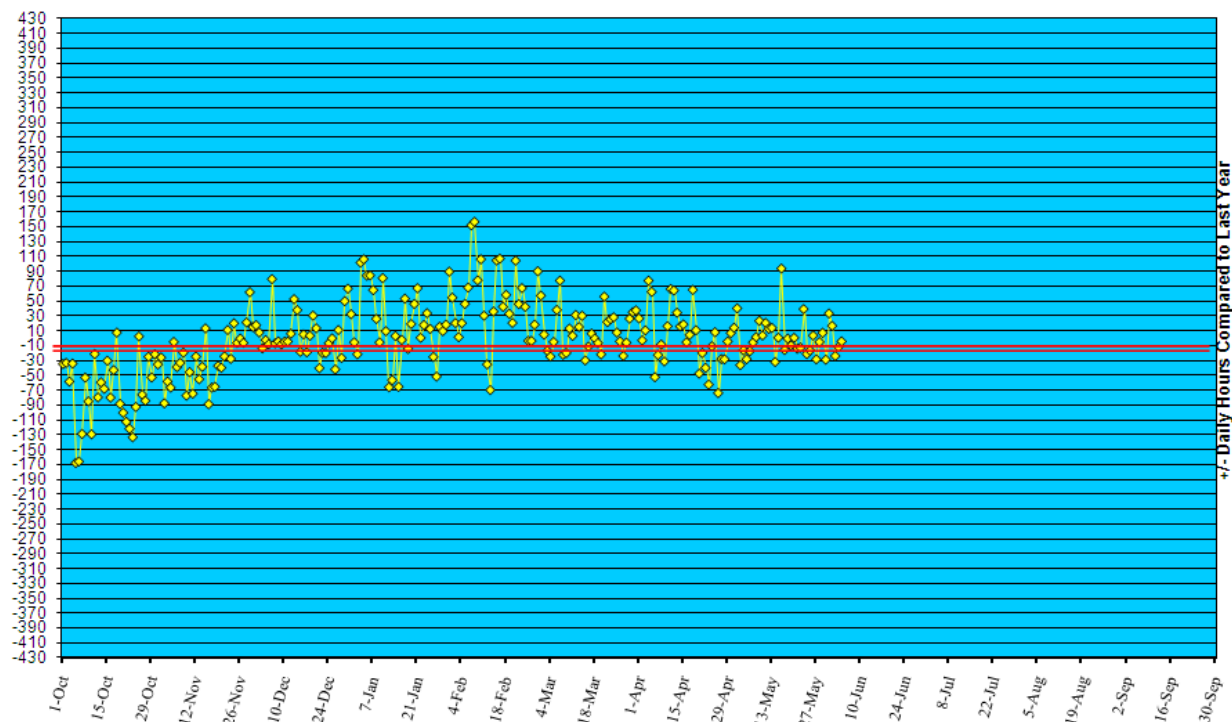


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/10.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to June 4, '11



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in April 2011 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (May 29 – June 4, 2011):	8	0
Prior week (May 22 – May 28, 2011):	11	0
Week#22, 2010 (May 30 – June 5, 2010):	4	0

0 outbreaks were reported to DHMH during MMWR Week 22 (May 29 – June 4, 2011).

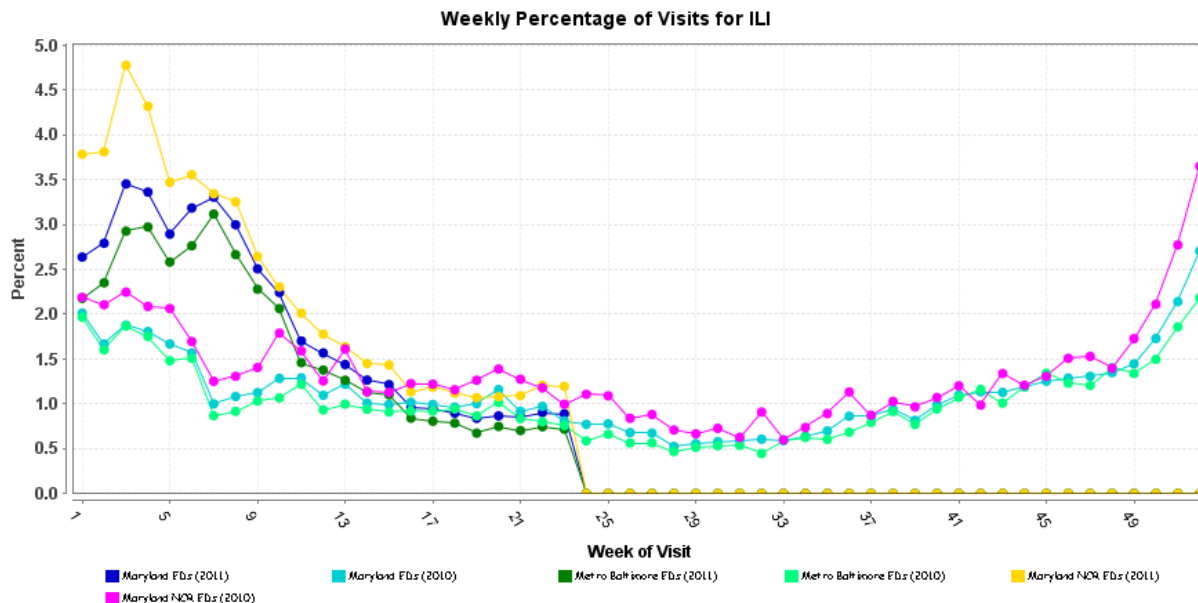
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May.

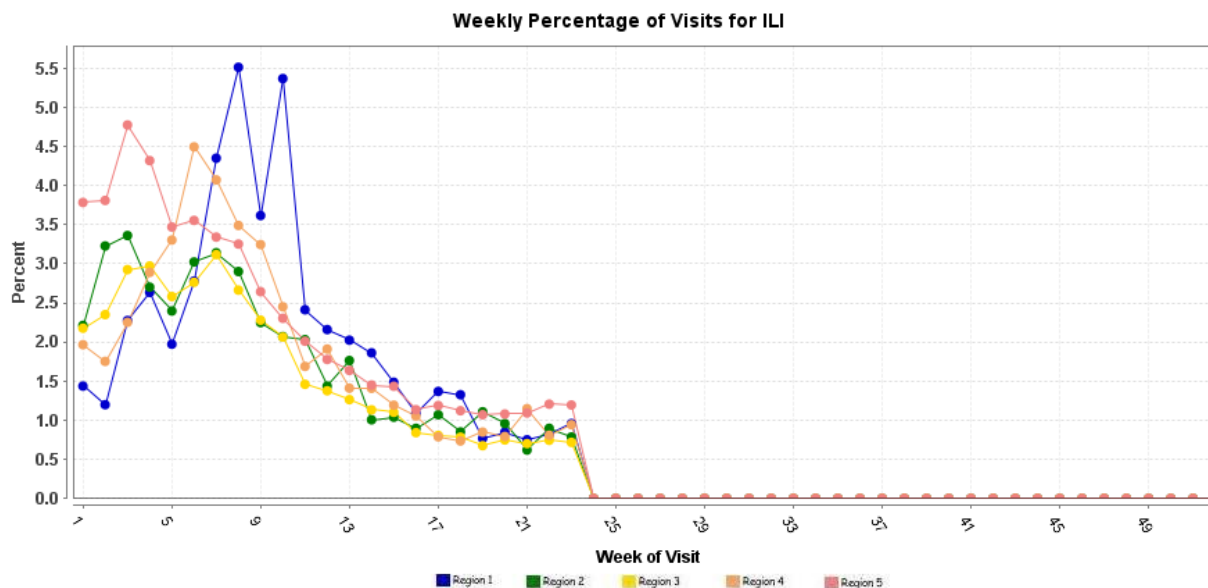
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



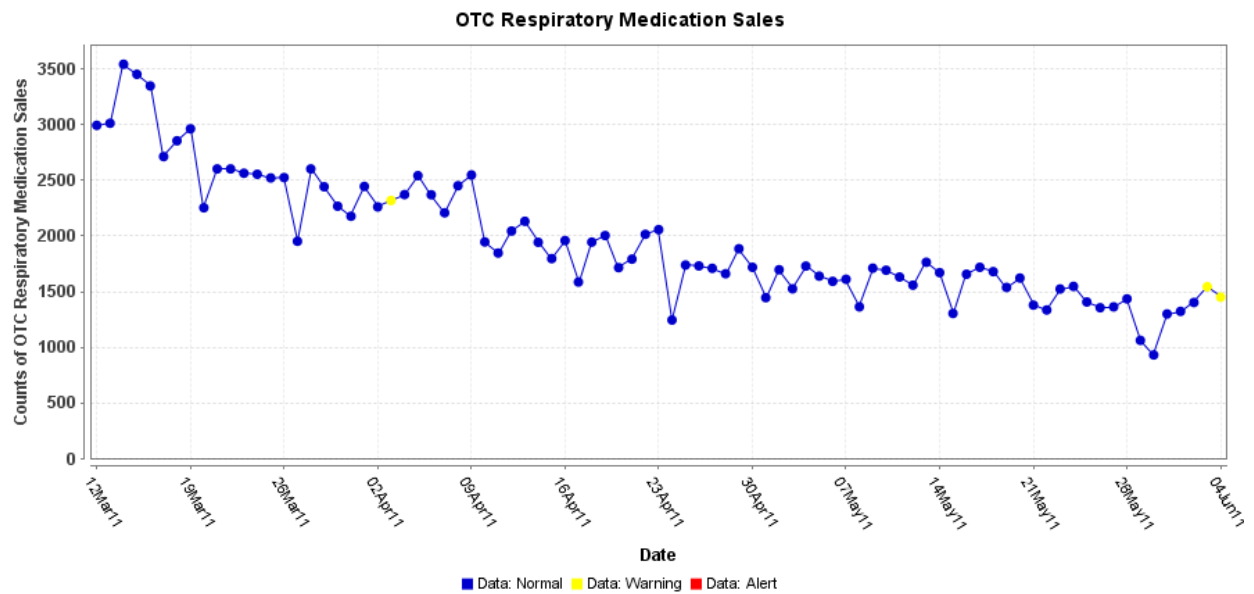
* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

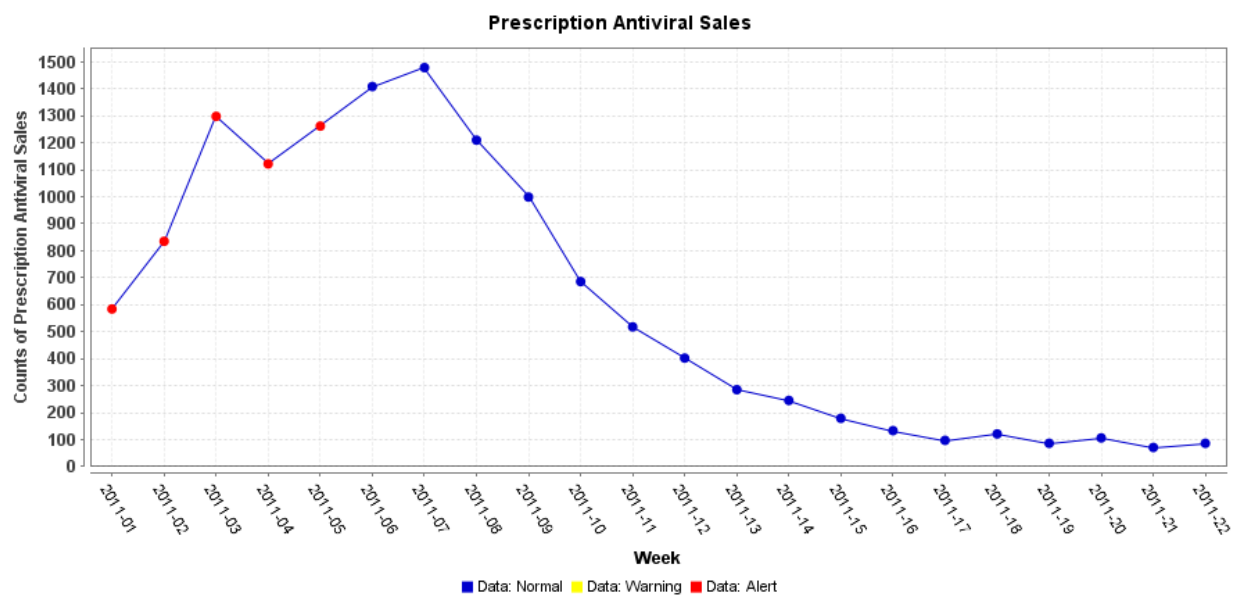
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of June 3, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 555, of which 324 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 58%.

AVIAN INFLUENZA, HUMAN (INDONESIA): 03 June 2011, The Ministry of Health of Indonesia has announced a confirmed case of human infection with avian influenza A(H5N1) virus. The patient is a one-year-old female from North Jakarta district, DKI Jakarta Province. She developed symptoms on 3 Apr 2011, and was referred to a hospital on 8 Apr 2011. She has fully recovered. One week prior to onset, the patient went to the wet market with her father to buy local chickens. The patient handled chickens at the market. Laboratory tests have confirmed infection with avian influenza A (H5N1) virus. Of the 178 cases confirmed to date in Indonesia, 146 have been fatal.

AVIAN INFLUENZA, HUMAN (EGYPT): 01 June 2011, The Ministry of Health of Egypt has announced a new confirmed case of human infection with avian influenza A (H5N1) virus. The case is a 30-year-old female from Amria District, Alexandria Governorate. She developed symptoms on 26 Apr 2011 and was hospitalized on 3 May 2011. She was in a critical condition under artificial ventilation and died on 9 May 2011. She had received oseltamivir treatment at the time of hospitalization. Investigations into the source of infection indicate that the patient had exposure to sick poultry suspected to have avian influenza. The case was confirmed by the Egyptian Central Public Health Laboratory, a National Influenza Center of the WHO Global Influenza Surveillance Network. Of the 144 cases confirmed to date in Egypt, 48 have been fatal.

AVIAN INFLUENZA, HUMAN, EGYPTIAN SUBLINEAGE: 01 June 2011, H5N1 avian influenza viruses in Egypt have branched into new sublineages and have shown a mutation that helps them bind more readily to human cell receptors in the lower respiratory tract, which may indicate an increased pandemic potential, according to a study published yesterday. Researchers from Egypt, Japan, and Thailand conducted a phylogenetic analysis of H5N1 viruses isolated from 2006 to 2009 in Egypt. Using reverse genetics, they found that several new sublineages have acquired an enhanced receptor-binding affinity of the viral hemagglutinin to alpha-2,6-linked sialic acid (SA), which is a receptor-binding trait of human influenza strains. The mutation was associated with increased attachment to and infectivity in the lower respiratory tract but not the larynx of humans and also demonstrated increased virulence in mice. The authors conclude, "Our findings suggested that emergence of new H5 sublineages with alpha-2,6 SA specificity caused a subsequent increase in human H5N1 influenza virus infections in Egypt, and provided data for understanding the virus's pandemic potential."

NATIONAL DISEASE REPORTS

PLAGUE (NEW MEXICO): 30 May 2011, Rodent-related diseases are making themselves known in 2011 in the 'Land of Enchantment' with cases of hantavirus and plague finding their way into the human population. The latest is the 2nd case of bubonic plague reported by the New Mexico Department of Health on Fri 27 May 2011. The patient is a 78-year-old man from Santa Fe County who is recovering in the hospital. New Mexico Health Secretary Dr Catherine Torres warns that health officials are seeing plague activity in both humans and animals in parts of north-central New Mexico and precautions need to be taken to avoid rodents and their fleas. (Plague is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

E. COLI O104 (GERMANY AND EUROPE): 03 June 2011, Germany's national disease control center says almost 200 new cases of E. coli [O104:H4] infection were reported in the 1st 2 days of June 2011, bringing the number of cases in the country to 1733. 18 people have died, all but 1 in Germany [the single one was in Sweden]. The Robert Koch Institute said that 520 of those sickened are suffering from a life-threatening complication that can cause kidney failure. The World Health Organization says 9 other European nations have reported a total of 80 people sick from the bacterium, most of whom had recently visited northern Germany. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX (BANGLADESH): 03 June 2011, Another 2 people have been found infected with anthrax at Faridpur Upazila [subdistrict] in Pabna. The 2 women have been infected with the disease, taking the toll to 12 in the upazila over the last 4 days, a health official confirmed on Thursday [2 Jun 2011]. Upazila health officer Khalilur Rahman told reporters that these people were identified as anthrax infected when they came to Faridpur Upazila Health Complex for treatment. "The patients have been given necessary treatments and advices," the physician added. He said that an anthrax expert team from Dhaka came on Wednesday [1 Jun 2011] and left the upazila on Thursday after taking blood samples from several areas and leaving specific suggestions to combat the disease. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

CHOLERA (UKRAINE): 03 June 2011, As of Wed 1 Jun 2011, 4 cases of cholera had been registered in Mariupol (Donetsk region) and another person suspected of having the disease was hospitalized, according to a statement posted on the website of the Donetsk regional sanitary and epidemiological service. The report notes that all patients were hospitalized and are receiving the necessary medical treatment, and their condition is satisfactory. In addition, a special commission is working in the town, monitoring the circulation of the causative agents of cholera in environmental objects. In particular, it is selecting and studying drinking water, water from open reservoirs, wastewater, food, fish, and examining patients with symptoms of intestinal disorders and cholera. "Non-O1 group Vibrio was found in one sample of fish (sprat) taken at the central market, which cannot cause cholera, but can cause acute intestinal infections. Investigations are continuing," reads the statement. The service also recalled that the use of aquatic resources and recreational fishing in the waters of the Azov Sea basin adjacent to the administrative borders of Donetsk region had been suspended from 1 Jun 2011. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

PLAGUE, BUBONIC (LIBYA): 31 May 2011, The emergence of several infectious diseases, including plague, has been reported in the Libyan city of Tobruk. A medical source at the city's central hospital, said that at least 4 cases [of plague] have been isolated at the medical hospital. He pointed out that there are 17 other cases which are undergoing medical tests on suspicion of being infected with the disease, said the medical source, who preferred anonymity. There is a state of panic and fear, which has hit the city, and it is not the 1st time this has occurred, as, in mid-June 2009, there was an outbreak of bubonic plague on the outskirts of Tobruk, which resulted in deaths. The source added that the Egyptian authorities are taking necessary action on the Egyptian-Libyan border to prevent the transmission of the disease into Egypt. An official quarantine has been imposed at the alternate port of Salloum. The fear of the spread of the disease in Egypt will be the biggest focus with the re-emergence of the disease plague, and this has contributed to the lawlessness taking place on the Libyan-Egyptian border at the moment. The border city of Tobruk is experiencing many difficulties in the field of health services because it has lost contact with the capital, Tripoli, since the outbreak of the revolution on 17 Feb 2011. (Plague is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (INDIA): 30 May 2011, The [Gujarat] State Health Department has put 42 people, who had come in contact with a deceased Crimean-Congo hemorrhagic fever (CCHF) patient, under fever surveillance. The state animal husbandry department has also begun animal surveillance as part of its preventive measures to stop the virus from spreading among humans. The victim was a resident of Uandani village in Vadnagar taluka of Mehsana district. Dr. Sudhir Gandhi, additional director training and epidemic [surveillance] in the State Health Department, said there was a suspicion that the victim [a woman] was infected by CCHF [virus]. "By the time her samples were sent to National Institute of Virology (NIV) for CCHF testing, preventive measures had already begun in Uandani and other neighboring villages," said Gandhi. He said that all areas falling within 5 kilometre [3.1 mi] radius of the patient's village are being covered." So far no suspect cases have been found. 42 people who had come in contact with the deceased patient are under fever surveillance," he said. He further said that 24 human serum samples have been taken to be checked for symptoms and they have been sent to NIV for further testing. "Apart from this our team has collected 56 tick samples from the cattle in the village. The Animal Husbandry Department has also taken samples from 16 other cattle. These samples have been sent to NIV and to the High Security Animal Disease Lab (HSADL)," he said. Fever surveillance will continue throughout next week and if suspected cases are found it could extend up to a month. The 35-year-old victim was admitted to Sterling Hospital on 20 May 2011 with high fever and the patient died on 21 May 2011. On 24 May 2011 the case was confirmed positive for CCHF [virus infection]. Dr. Chandramauli Raval from the hospital said, "Sterling hospital is equipped to deal with highly infectious cases like that of CCHF. We treated the case in an isolated ward with staff using personal protective gear and special instruments. We have sterilised the wards after the case was confirmed as CCHF. So far no other cases of the disease have been reported," said Raval. (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmh.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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